
Mauna Loa Solar Observatory Observer's Log

Sun Aug 22 16:38:05 GMT 2004
Year: 04 Doy: 235
Observer: koon
WEATHER COMMENT: Sun Aug 22 16:38:07 GMT 2004
Fog and light rain, wind=15 mph from the SE, temp=43F.
COMMENT: Sun Aug 22 16:40:43 GMT 2004
No obs until fog and rain clear away.
WEATHER COMMENT: Sun Aug 22 22:52:13 GMT 2004
Fog and rain have receded downhill, starting most instruments.
ECHO COMMENT: Sun Aug 22 22:52:43 GMT 2004
Time OK.
MKIV COMMENT: Sun Aug 22 22:52:53 GMT 2004
Centered occulting.
Sun Aug 22 22:53:08 GMT 2004 MKIV Start Patrol
Sun Aug 22 22:53:26 GMT 2004 CHIP Start Patrol
Sun Aug 22 22:53:39 GMT 2004 PICS Start Patrol
PSPT COMMENT: Sun Aug 22 22:58:47 GMT 2004
Not observing, troubleshooting dome azimuth slippage problem.
Sun Aug 22 22:59:27 GMT 2004 MKIV End Patrol
Sun Aug 22 23:19:16 GMT 2004 MKIV End Cal
Sun Aug 22 23:58:30 GMT 2004 MKIV Start Patrol
NICE CHIP IMAGE: 2338
NICE PICSLIMB IMAGE: 2337
NICE PICSDISC IMAGE: 2311
NICE MK4 IMAGE: 2303
Mon Aug 23 02:10:40 GMT 2004 CHIP End Patrol
Mon Aug 23 02:12:27 GMT 2004 PICS End Patrol
Mon Aug 23 02:14:53 GMT 2004 MKIV End Patrol
MKIV COMMENT: Mon Aug 23 03:21:04 GMT 2004
PSPT PROBLEM: Mon Aug 23 03:21:09 GMT 2004
I did a lot of studying of the PSPT dome azimuth slippage problem that has
plagued us when the dome starts from certain positions, mainly a large
NMorthern sector and a smaller South pointing sector - if the dome is pointing
in these areas then the az motor may slip trying to overcome the friction of
the static dome. Besides normal static friction there is a place where the
inside of the dome skirt rubs against the outside of the not-quite-circular
dome support wall. The rubbing occurs at the covered seam in the static ring
of roller mounts that is installed on the top plates of the support wall.
There are 5 covered seams but the Eastmost static seam is the rubber. There
are 3 sections of rails that are attached to the dome inner skirt, one of
them is bent out of shape but probably still usable. The increase in friction
when starting from certain positions of az causes the az motor gears to slip
in the springy racks and so the encoder which is fixed with the motor reads
erroneous positions sometimes until the dome gets Homed again. So we need
to reduce or prevent that dome rubbing friction, and I think the software

should be changed to prevent pointing the dome slot in a Northern sector
from the Home Position to an equal place to the West of North, a no-point
sector. Maybe we could also move the Home switch more East and less North of
its current position. I suggest not using the PSPT until we can find a solution
so we don't further damage that bent dome rail. Note that the rubbing always
occurs at the same place no matter where I point the dome, so the dome isn't
as noncircular as the dome wall mounts are. -Darryl
Mon Aug 23 03:42:18 GMT 2004
        MkIV

00_01.rawmk4	00_37.rawmk4	01_09.rawmk4	01_42.rawmk4	22_53.rawmk4
00_04.rawmk4	00_40.rawmk4	01_12.rawmk4	01_45.rawmk4	22_56.rawmk4
00_07.rawmk4	00_43.rawmk4	01_15.rawmk4	01_48.rawmk4	23_03.rawmk4
00_10.rawmk4	00_46.rawmk4	01_18.rawmk4	01_50.rawmk4	23_09.rawmk4
00_13.rawmk4	00_49.rawmk4	01_21.rawmk4	01_53.rawmk4	23_15.rawmk4
00_16.rawmk4	00_52.rawmk4	01_24.rawmk4	01_56.rawmk4	23_58.rawmk4
00_19.rawmk4	00_55.rawmk4	01_27.rawmk4	01_59.rawmk4	c22_59.rawmk4
00_24.rawmk4	00_58.rawmk4	01_30.rawmk4	02_02.rawmk4	c23_06.rawmk4
00_28.rawmk4	01_01.rawmk4	01_33.rawmk4	02_05.rawmk4	c23_12.rawmk4
00_31.rawmk4	01_03.rawmk4	01_36.rawmk4	02_08.rawmk4	
00_34.rawmk4	01_06.rawmk4	01_39.rawmk4	02_11.rawmk4	